TMF1 Antibody / TATA element modulatory factor [clone 30T88] (FY12871)

Catalog No.	Formulation	Size
FY12871	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA	100 ul

Recombinant RABBIT MONOCLONAL

Bulk quote request

Availability	2-3 weeks
Species Reactivity	Human
Format	Liquid
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	30T88
Purity	Affinity-chromatography
Buffer	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.
UniProt	P82094
Applications	Western Blot : 1:500-1:2000 Immunocytochemistry/Immunofluorescence : 1:50-1:200
Limitations	This TMF1 antibody is available for research use only.

Description

TMF1 antibody recognizes TATA element modulatory factor, a nuclear protein encoded by the TMF1 gene. TATA element modulatory factor was first identified for its ability to bind DNA elements and regulate transcription, particularly through interactions with transcription initiation complexes. TMF1 functions as a cofactor influencing promoter activity and has roles in transcriptional repression, Golgi organization, and vesicular trafficking. Studies with TMF1 antibody have shown that this protein can act as both a positive and negative regulator depending on context, allowing cells to fine tune the initiation of gene expression. Its broad functional spectrum has made it a focus in transcriptional regulation, intracellular transport, and cancer biology.

At the molecular level, TMF1 interacts with transcription factors such as the TATA binding protein and modulates their activity, thereby influencing the expression of a variety of genes. This modulation can occur through direct protein-protein interactions or by altering chromatin structure to make promoter regions more or less accessible. Beyond transcriptional regulation, TMF1 is associated with the Golgi apparatus, where it helps maintain organelle structure and mediates

transport of vesicles. Its involvement in Golgi positioning and vesicle budding has highlighted TMF1 as a dual-function protein, bridging gene regulation and organelle dynamics. Studies employing TMF1 antibody have demonstrated its importance in proper protein sorting and secretion, adding another layer to its regulatory portfolio.

Dysregulation of TATA element modulatory factor has been implicated in cancer and developmental disorders. Altered TMF1 expression can influence cell proliferation and differentiation, linking this protein to oncogenic pathways. Its role in spermatogenesis is of particular note, with evidence showing that reduced expression of TMF1 impairs spermatid development, leading to infertility in experimental models. In cancer research, both upregulation and downregulation of TMF1 have been reported, suggesting context-dependent roles in tumor progression. Detection with TMF1 antibody enables exploration of these diverse functions, and recent studies have suggested possible connections between TMF1 expression and clinical outcomes in certain malignancies.

TMF1 antibody is widely used in western blotting, immunohistochemistry, and immunofluorescence. Western blotting reveals protein levels across tissues and cell lines, while immunohistochemistry highlights nuclear localization patterns that reflect its transcriptional regulatory roles. Immunofluorescence can further resolve subcellular localization within the Golgi network and nucleus, helping to define the multifunctional nature of this protein. In some experimental settings, TMF1 antibody has been used in chromatin immunoprecipitation to identify DNA binding partners and confirm direct gene regulatory roles. Researchers studying gene regulation, intracellular transport, fertility, and disease mechanisms rely on TMF1 antibody to generate reproducible and interpretable results.

By supporting experiments across molecular biology, cancer research, and developmental biology, NSJ Bioreagents provides validated TMF1 antibody reagents that facilitate discovery of the complex functions of TATA element modulatory factor. As interest grows in proteins that integrate transcriptional control with intracellular transport, TMF1 antibody offers a critical tool for advancing understanding of these dual processes.

Application Notes

Optimal dilution of the TMF1 antibody should be determined by the researcher.

Immunogen

A synthesized peptide derived from human TMF was used as the immunogen for the TMF1 antibody.

Storage

Store the TMF1 antibody at -20oC.